

PAMELA S. CROCKER-DAVIS

IBLA 85-20

Decided November 24, 1986

Appeal from a decision of the Wyoming State Office, Bureau of Land Management, rejecting oil and gas lease application W 78347.

Affirmed in part, reversed in part.

1. Oil and Gas Leases: Known Geologic Structure

A decision of BLM delineating the boundaries of a known geologic structure of a producing oil and gas field will be affirmed where, based on the stratigraphic nature of the hydrocarbon accumulations, BLM draws the exterior boundaries on the basis of the zero net effective reservoir isopach of a producing formation.

2. Oil and Gas Leases: Known Geologic Structure-- Regulations: Force and Effect as Law

BLM Instruction Memoranda and Manual provisions do not generally have the force and effect of law.

APPEARANCES: Marla J. Williams, Esq., Denver, Colorado, for appellant; Lowell L. Madsen, Esq., Office of the Regional Solicitor, Denver, Colorado, for the Bureau of Land Management.

OPINION BY ADMINISTRATIVE JUDGE BURSKI

By decision dated August 22, 1984, the Wyoming State Office, Bureau of Land Management (BLM), rejected the oil and gas lease application of Pamela S. Crocker-Davis, which had been drawn with first priority for parcel WY 9290, embracing the NE 1/4 sec. 9, N 1/2 sec. 10, and E 1/2 sec. 24, T. 23 N., R. 112 W., sixth principal meridian, in the December 1981 simultaneous oil and gas lease drawing. Issuance of this lease was initially delayed by the adjudication of a protest filed by one Ellis R. Ferguson whose drawing entry cards (DEC's), including one for this parcel, had been excluded because the remittance tendered therewith was not in an acceptable form. BLM's action in excluding these DEC's was affirmed by this Board in Ellis R. Ferguson, 69 IBLA 352 (1982). Ferguson thereupon sought judicial review. By order filed May 1, 1984, the United States District Court for Wyoming affirmed the decision of the Board. See Ellis R. Ferguson v. Maxwell Lieurance, No. C 83-264-K (May 1, 1984). No appeal was taken from that decision.

Upon the termination of the judicial proceedings in Ferguson, BLM recommenced adjudication of appellant's lease application. It was ultimately determined that all of the land involved was within an undefined addition to the Big Piney-LaBarge Known Geologic Structure (KGS), effective July 26, 1984. BLM, therefore, rejected the application in its entirety, and this appeal followed.

The undefined addition to the Big Piney-LaBarge KGS, which was referenced in the State Office decision, involved a total of 238,210.3 acres. While the focus of the instant appeal is limited to only a small portion of this addition, it is necessary to, at least briefly, discuss the underlying rationale for the entire extension since appellant does take exception to it.

The Big Piney-LaBarge KGS was originally established as a defined KGS on September 18, 1933. Periodically thereafter, additions were made to this KGS and additional KGS's were established in the area. By 1984, as the Geologic Report, which served as an accompanying narrative to the addition, stated, "Recent oil and gas development, along with comprehensive evaluation of the subsurface geologic conditions and oil and gas occurrence along the Moxa Arch," had indicated the need for further expansion of the KGS's existing in the area. The addition of the approximately 238,000 acres to the Big Piney-LaBarge KGS (which also involved the merger of many smaller pre-existing KGS's) was the result of these evaluations.

The Geologic Report noted that, while production occurred from four formations within the KGS addition (Bear River, Dakota, and 1st and 2nd Frontier Sandstones), the 2nd Frontier Sandstone was used to determine the presumptively productive boundaries for KGS addition because the 2nd Frontier boundaries included within it the boundaries of the other three formations.

A geologic structure map was prepared to determine the extent of structural control on hydrocarbon accumulation. An analysis of the mapping led to the conclusion that geologic structure was not the primary control of oil and gas accumulation along the Moxa Arch. Rather, it was determined that the stratigraphic and sedimentary properties of the productive formations were the primary controls of oil and gas accumulation. The Geologic Report expressly noted that "local stratigraphic or sedimentary variations in the 2nd Frontier and variations in porosity and permeability within the reservoir strata act in combination to limit the extent of producible deposits of oil and gas in this area regardless of the structural favorability of a particular location." Id. at 2.

In view of these considerations, an isopach map of net effective reservoir thickness for the 2nd Frontier was prepared to outline the extent of hydrocarbon accumulations. The Geologic Report noted that the net effective reservoir was considered to include all known reservoir sands which contained producible hydrocarbons, evidence of which might include showings of free gas or oil discovered during a drill stem test, even though the well involved might have been abandoned without any production. Where wells showed no Frontier pay or where no data was available from wells, they were given zero net effective reservoir thickness because of the indicated lack of producible hydrocarbons.

Upon completion of the net effective isopach map, the boundary of the Big Piney-LaBarge KGS was drawn along the outermost 1/ zero net effective reservoir isopach. All full sections intersected by this line in townships 17 through 24 were included in the KGS pursuant to Instruction Memorandum 84-439 (Apr. 19, 1984), so as to encompass the Wyoming spacing unit for gas fields. 2/ Under these procedures, all land within appellant's application was included within the addition to the Big Piney-LaBarge KGS.

On appeal, Crocker-Davis does not challenge the well-established principle that once land is included within a KGS it is only subject to lease through the competitive leasing procedures set forth in 43 CFR 3120. See, e.g., McDonald v. Clark, 771 F.2d 460, 464 (10th Cir. 1985); McDade v. Morton, 353 F. Supp. 1006 (D.D.C. 1973), aff'd, 494 F.2d 1156 (D.C. Cir. 1974). Rather, appellant argues that the lands within her application were not properly included in the KGS addition.

[1] The main argument advanced by appellant attacks the zero net effective reservoir isopach as a valid indicator of the presence of producible hydrocarbons. Thus, appellant argues that the mere presence of free gas in the 2nd Frontier formation was deemed sufficient to include land within a KGS regardless of whether or not the hydrocarbons could be economically produced. Appellant notes that, by definition, a KGS is "the trap in which an accumulation of oil or gas has been discovered by drilling and determined to be productive, the limits of which include all acreage that is presumptively productive," and concludes that BLM's approach essentially ignored the requirement that the accumulation must be "determined to be productive." See 43 CFR 3100.0-5(1). We do not agree.

As this Board has held, "Delineation of a KGS recognizes the existence of a continuous entrapping structure, on some part of which there is production, or of numerous related, but nevertheless independent, stratigraphic as well as structural traps." Thunderbird Oil Corp., 91 IBLA 195, 202 (1986). When land is properly included within a KGS it is thereby "presumptively productive." Moreover, we have specifically pointed out in the context of stratigraphic traps that BLM need not show that the specific acreage included is productive. Rather, "it must merely establish that a producing structure exists which extends to the land in question," thereby rendering the land presumptively productive. Id. As BLM notes in the instant case, the zero net effective reservoir isopach establishes the external limits of the productive areas of the 2nd Frontier formation, and some of the lands covered by appellant's oil and gas lease application are within those limits. Thus, this land is properly KGS'd even though there has been no affirmative showing that hydrocarbons could be economically produced from the subject lands.

1/ Thus, as drawn, various areas included within the KGS showed zero net effective reservoir but were totally surrounded net effective pay. An example of this can be seen in secs. 1, 2, 11, and 12, T. 24 N., R. 111 W. These areas were included within the KGS. No such area is involved in this appeal and we do not pass upon this facet of the KGS herein.

2/ In townships 25 through 28, on the other hand, vertical 320-acre spacing was used, as the state spacing units in that area were 320 acres.

[2] Appellant also objects to the inclusion within the KGS of all lands within any section transected by the zero net effective reservoir isopach, in those areas where state spacing units for gas fields are 640 acres. This is of particular relevance with respect to the N 1/2 sec. 10, since most of that parcel lies outside the zero net effective reservoir isopach.

We note initially that the United States is not obligated to concur with state spacing determinations with respect to Federal lands. Thus, in Kirkpatrick Oil & Gas Co., 15 IBLA 216, 81 I.D. 162 (1974), the Board affirmed a decision declining to approve a communitization agreement based on the 640-acre spacing mandated by the State of Oklahoma Corporation Commission where the evidence showed that an oil well had been successfully completed and that 640 acre spacing would not provide for optimum drainage of the field. The question herein, however, is not whether BLM must follow state spacing practices in defining the perimeters of a KGS, but rather whether it may do so as an exercise of its discretion.

Past practice of the Department had been to draw the exterior boundaries of the KGS on the basis of the smallest legal subdivision (quarter quarter section) invaded by the edge of the producing structure. See, e.g., Conservation Division Manual 620.3.E. In Charles J. Babington, 4 IBLA 43 (1971), we expressly affirmed this practice as administratively sound, noting that all land within the smallest legal subdivision (which, for surveyed land, is generally the smallest parcel subject to leasing, any part of which was located within a KGS, was presumed to be productive. Under BLM's new approach, all land within a spacing unit, any part of which is invaded by a producing structure is included in a KGS. Since spacing units may cover an entire section, this drastically increases the amount of acreage not on the structure which is included on a KGS.

BLM justifies its new approach by arguing that it is mandated by the Instruction Memorandum. See also BLM Manual 3022.11E2 (June 28, 1985). The problem is that nothing in the Instruction Memorandum purports to explain the relevancy of state spacing units to the establishment of KGS boundaries. In effect, we have a clear policy change but no explanation as to why the change has occurred.

It is insufficient to argue that this is a matter committed to agency discretion. It is elementary that even discretion may not be exercised in an arbitrary or capricious manner. We have been proffered no justification whatsoever for this administrative change, which may effectively result in the inclusion of land in a KGS which is over a mile beyond the zero net effective reservoir isopach.

Moreover, the effect of BLM's change is not purely administrative, as is clear from the instant case. The use of the 640-acre spacing unit resulted in the legal determination by BLM that none of the acreage within appellant's application was available for noncompetitive leasing. Had BLM limited the KGS additions to the smallest legal subdivision invaded by the edge of the producing structure, it is clear that portions of the acreage in appellant's application would have been available for non-competitive leasing.

We have noted in the past that Instruction Memoranda and BLM Manual provisions do not have the force and effect of law and are not binding on either this Board or the public at large. See generally Schweiker v. Hansen, 450 U.S. 785, 789 (1981); United States v. Kaycee Bentonite Corp., 64 IBLA 183, 214, 89 I.D. 262 (1982). While we would not prevent the imposition of such a change to bar appellant's application even though the change occurred after the filing of the application where BLM presented good and sufficient reasons therefor, we cannot affirm rejection of the application based on this new policy where BLM has provided no theoretical basis upon which it might be justified. 3/ If, in the future, BLM wishes to base KGS boundaries on the state spacing units in the area of the KGS, it should at least show some connection between those units and the concept of a KGS. This has not been done here. Therefore, to the extent that appellant's application embraced land beyond each quarter section of land actually traversed by the exterior boundary drawn along the zero net effective reservoir isopach, the decision rejecting the application must be reversed.

Appellant has presented other arguments going generally to the correctness of the inclusion of some of the land located within the zero net effective reservoir isopach in the KGS. Inasmuch as we have affirmed the essential BLM approach on this question, applicant's specific arguments must fail.

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision appealed from is affirmed in part and reversed in part and the case files are remanded for further action not inconsistent herewith.

James L. Burski
Administrative Judge

We concur:

Franklin D. Arness
Administrative Judge

Wm. Philip Horton
Chief Administrative Judge

3/ We note that in J. A. Masek, 92 IBLA 12 (1986), we referenced BLM's assertion that "it is an 'accepted practice' to include an entire oil and gas spacing unit in a KGS if any portion has been determined to be presumptively productive." We did not, however, have cause to examine the justification for this "accepted practice." In any event, to the extent anything in J. A. Masek, supra, might be deemed contrary to the views expressed herein, it is hereby overruled.

